General

Guideline Title

Drug interactions with hormonal contraception.

Bibliographic Source(s)

Clinical Effectiveness Unit. Drug interactions with hormonal contraception. London (UK): Faculty of Sexual and Reproductive Healthcare; 2012 Jan. 26 p. [126 references]

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (April 2005). Drug interactions with hormonal contraception. J Fam Plann Reprod Health Care 2005 Apr;31(2):139-51. [117 references]

Recommendations

Major Recommendations

Definitions of the grades of recommendation based on levels of evidence (A-C, Good Practice Point) are provided at the end of the "Major Recommendations" field.

What Should Be Discussed with Women When Prescribing Drugs to Women Using Hormonal Contraception?

- Health professionals supplying hormonal contraception should ask women about their current and previous drug use including prescription, over the counter, herbal, recreational drugs and dietary supplements. (Good Practice Point)
- Women using hormonal contraception should be informed about the potential for interactions with other drugs and the need to seek the advice of a health professional before starting any new drugs. (Good Practice Point)

Advice for Women Using Drugs That May Reduce Contraceptive Efficacy

Enzyme-inducing Drugs

- All women starting enzyme-inducing drugs should be advised to use a reliable contraceptive method unaffected by enzyme inducers (e.g. progestogen-only injectable, copper-bearing intrauterine devices [Cu-IUDs] or the levonorgestrel-containing intrauterine system [LNG-IUS]). (Grade C)

Combined Hormonal Contraception

- Women who do not wish to change from a combined method while on short-term treatment with an enzyme-inducing drug (and for 28 days after stopping treatment) may opt to continue using a combined oral contraceptive (COC) containing at least 30 µg ethinylestradiol (EE), the patch or ring along with additional contraception. An extended or tricycling regimen should be used with a hormone-free interval of 4 days. Additional contraception should be continued for 28 days after stopping the enzyme-inducing drug. (Good Practice Point)
- With the exception of the very potent enzyme inducers rifampicin and rifabutin, women who are on an enzyme-inducing drug and who do not wish to change from COC may increase the dose of COC to at least 50 µg EE (maximum 70 µg) and use an extended or tricycling regimen with a pill-free interval of 4 days. (Good Practice Point)
- In women using enzyme-inducing drugs with COC, breakthrough bleeding may indicate low serum EE concentrations. If other causes (e.g., chlamydia) have been excluded, the dose of EE can be increased up to a maximum of 70 µg EE. (Good Practice Point)

Progestogen-only Contraception

- Women who do not wish to change from the progestogen-only pill (POP) or implant while on short-term treatment with an enzyme-inducing drug or within 28 days of stopping treatment may opt to continue the method together with additional contraceptive precautions (e.g., condoms). Additional precautions should be continued for 28 days after stopping the enzyme-inducing drug. (Good Practice Point)

Emergency Contraception

- Women using enzyme-inducing drugs who require emergency contraception (EC) should be advised of the potential interactions with oral methods and offered a Cu-IUD. (Good Practice Point)
- Women who request oral EC while using enzyme-inducing drugs or within 28 days of stopping them, should be advised to take a total of 3 mg LNG (two 1.5 mg tablets) as a single dose as soon as possible and within 120 hours of unprotected sexual intercourse (UPSI) (use of LNG >72 hours after UPSI and double dose are outside the product licence). (Grade C)
- Ulipristal acetate (UPA) is not advised in women using enzyme-inducing drugs or who have taken them within the last 28 days. (Grade C)

Progesterone Receptor Modulators

- Women should be advised that UPA has the potential to reduce the efficacy of hormonal contraception. Additional precautions are advised for 14 days after taking UPA (9 days if using or starting the POP, 16 days for Qlaira®) (outside product license). (Good Practice Point)

Drugs That Affect Gastric pH

- Women using drugs that affect gastric pH (e.g., antacids, histamine H2 antagonists and proton pump inhibitors) and who require EC should be offered a Cu-IUD or LNG as the efficacy of UPA may be reduced. (Good Practice Point)

What Advice Should Be Given to Women Using Hormonal Contraception and Antibacterial Drugs That Are Not Enzyme Inducers?

- Additional contraceptive precautions are not required during or after courses of antibiotics that do not induce enzymes. (Grade C)
- Women should be advised about the importance of correct contraceptive practice during periods of illness. (Good Practice Point)

Effect of Contraceptive Hormones on Drug Metabolism

- Women on lamotrigine monotherapy should be advised that due to the risk of reduced seizure control whilst on combined hormonal contraception (CHC), and the potential for toxicity in the CHC-free week, the risks of using CHC may outweigh the benefits. (Grade C)
- Women on drugs that are affected by contraceptive hormones may require monitoring of drug levels or effect when starting, changing or stopping hormonal contraception. The woman's hospital doctor and/or general practitioner should be involved in decisions to change contraception and appropriate follow-up should be arranged. (Good Practice Point)

Definitions:

Grading of Recommendation

A: Evidence based on randomised controlled trials (RCTs)

B: Evidence based on other robust experimental or observational studies

C: Evidence is limited but the advice relies on expert opinion and has the endorsement of respected authorities

Good Practice Point: Where no evidence exists but where best practice is based on the clinical experience of the multidisciplinary group

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Unintended pregnancy
Drug interactions with hormonal contraception

Guideline Category

Counseling

Management

Prevention

Clinical Specialty

Family Practice

Internal Medicine

Obstetrics and Gynecology

Pharmacology

Intended Users

Advanced Practice Nurses

Nurses

Patients

Pharmacists

Physician Assistants

Physicians

Guideline Objective(s)

- To provide information for clinicians and women using hormonal contraception applicable when concurrent medications are prescribed
- To provide guidance for health professionals on interactions between hormonal contraception and other drugs

Note: This guidance does not consider the effects of underlying conditions on hormonal contraception.

Target Population

Women of reproductive age using contraception who have been prescribed concomitant medication

Interventions and Practices Considered

1. Asking patients about current and previous drug use, including prescription, non-prescription, herbal and recreational drug and dietary supplement use
2. Providing women with information about possible interactions between hormonal contraception and other drugs
3. Encouraging women to consider a contraceptive method that is unaffected by the interacting drug
4. Educating women about which drugs may reduce the efficacy of hormonal contraception and advising about additional contraceptive protection, such as condoms

Major Outcomes Considered

- Mechanism of drug interaction with hormonal contraception
- Efficacy of hormonal contraception
- Effects of drug interactions on contraceptive efficacy

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Evidence was identified using a systematic literature review and electronic searches are performed for: MEDLINE (CD Ovid version) (1996–2010); EMBASE (1996–2010); PubMed (1996–2010); The Cochrane Library (to 2010) and the US National Guideline Clearinghouse. The searches were performed using relevant medical subject headings (MeSH), terms and text words. The Cochrane Library was searched for relevant systematic reviews, meta-analyses and controlled trials relevant to drug interactions with hormonal contraception. Previously existing guidelines from the Faculty of Sexual and Reproductive Healthcare (FSRH) (formerly the Faculty of Family Planning and Reproductive Health Care), the Royal College of Obstetricians and Gynaecologists (RCOG), the World Health Organization (WHO) and the British Association for Sexual Health and HIV (BASHH), and reference lists of identified publications, were also searched.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Not Given)

Rating Scheme for the Strength of the Evidence

Not stated

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Selected key publications are appraised using standard methodological checklists similar to those used by the National Institute for Health and Clinical Excellence (NICE). All papers are graded according to the Grades of Recommendations Assessment, Development and Evaluation (GRADE) system.

Recommendations are graded using a scheme similar to that adopted by the Royal College of Obstetricians and Gynecologists (RCOG) and other guideline development organizations. The clinical recommendations within this guidance are based on evidence whenever possible. Summary evidence tables are available on request from the CEU.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

The Clinical Effectiveness Unit (CEU) formulates key clinical questions, and a systematic literature review is performed by the CEU researcher.

The draft one guidance document is written, providing recommendations and good practice points based on the literature review. The CEU has overall responsibility for writing the Guidance document. The multidisciplinary group and other peer reviewers should highlight inconsistencies and errors or where the text is incomprehensible.

A one-day meeting for peer review is held with the multidisciplinary group, comprising stakeholders, the Faculty of Sexual and Reproductive Healthcare (FSRH) Clinical Effectiveness Committee (CEC), representation from the FSRH Education Committee and, where possible, service user representation and representation from the FSRH Council. Two independent reviewers also review the document.

Draft two of guidance document is prepared based on written comments from the multidisciplinary group. Peer review of this draft is performed by the multidisciplinary group, the FSRH CEC, and two independent reviewers. Draft three of the guidance document is prepared based on written comments from the peer reviewers. This draft document is published on the Faculty Web site for 1 month for public consultation. All written feedback comments on the draft three guidance document are reviewed by the CEU, multidisciplinary group, independent peer reviewers, and FSRH CEC. The CEU's response to consultation comments are posted on FSRH Web site. A final draft is then prepared. Proofreading of the guidance document is then performed by three members of the CEU team independently, and comments are collated.

Rating Scheme for the Strength of the Recommendations

Grading of Recommendation

A: Evidence based on randomised controlled trials (RCTs)

B: Evidence based on other robust experimental or observational studies

C: Evidence is limited but the advice relies on expert opinion and has the endorsement of respected authorities

Good Practice Point: where no evidence exists but where best practice is based on the clinical experience of the multidisciplinary group

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Draft two of guidance document is prepared based on written comments from the multidisciplinary group. Peer review of this draft is performed by the multidisciplinary group, the Faculty of Sexual and Reproductive Healthcare (FSRH) Clinical Effectiveness Committee (CEC), and two independent reviewers. Draft three of the guidance document is prepared based on written comments from the peer reviewers. This draft document is published on the Faculty Web site for 1 month for public consultation. All written feedback comments on the draft three guidance document are reviewed by the Clinical Effectiveness Unit (CEU), multidisciplinary group, independent peer reviewers, and FSRH CEC. The CEU's response to consultation comments are posted on FSRH Web site. A final draft is then prepared. Proofreading of the guidance document is then performed by three members of the CEU team independently, and comments are collated.

The final guidance document is published by the FSRH. A Portable Document Format (PDF) version of the guidance is available on the FSRH Web site.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate counseling and management of women of reproductive age who are prescribed medication that may interact with concurrent contraceptive medications

Potential Harms

- Drug interactions should be considered when prescribing medication for women who may use hormonal contraception and could be at risk of contraceptive failure or other adverse effects.
- Drugs that reduce contraceptive hormone levels or decrease contraceptive efficacy are listed in Appendix 3 in the original guideline document.
- Drugs that can increase the serum levels of contraceptive hormones are listed in Appendix 5 in the original guideline document.
- Drugs that can be increased or decreased by concomitant hormonal contraceptive use are listed in Appendix 6 in the original guideline document.

Contraindications

Contraindications

Combined hormonal contraception (CHC) may be contraindicated in some women with a history of migraine.

Qualifying Statements

Qualifying Statements

Qualifying Statements

- For many drugs there is a paucity of good quality, robust evidence on their interaction with hormonal contraception. Most of the available data are from case reports, observational studies, pharmacovigilance reports and studies of new contraceptive products. Pregnancies are reported in women using hormonal contraception with other drugs, but this does not necessarily mean that the concomitant medication was responsible for the contraceptive failure.
- Recommendations are based on the evidence available at the time of writing and consensus opinion of experts. The recommendations should be used to guide clinical practice but they are not intended to serve alone as a standard of medical care or to replace clinical judgement in the management of individual cases. As new drugs are introduced and pharmacological knowledge expands, information in this guidance document may become outdated. The Clinical Effectiveness Unit (CEU) strongly recommends using the guidance in conjunction with regularly updated sources of information such as those listed in Appendix 2 in the original guideline document.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2005 Apr (revised 2012 Jan)

Guideline Developer(s)

Faculty of Sexual and Reproductive Healthcare - Professional Association

Source(s) of Funding

Faculty of Sexual and Reproductive Healthcare

Guideline Committee

Clinical Effectiveness Unit

Composition of Group That Authored the Guideline

Guideline Development Group: Dr Louise Melvin (Director, Clinical Effectiveness Unit); Ms Julie Craik (Researcher, Clinical Effectiveness Unit); Dr Pavan Bhargava (General Practitioner, Faculty Instructing Doctor, Clinical Lead in Practice, Buckinghamshire); Dr Andrea Brockmeyer (Specialty Doctor in Sexual Health, Chester); Dr Jane Dickson (Community Specialist, Contraception and Sexual Health; Vice-Chair, FSRH, Clinical Standards Committee, London); Dr Hamish Dougall (General Practitioner, Crieff Medical Centre, NHS Tayside); Dr Alyson Elliman (Consultant, SRH, Croydon Community Provider Services; Vice-President FSRH, London); Mrs Manjula Halai (Pharmacist, Staff Editor, BNF Publications, London); Ms Emma Kennedy (Matron, Sexual Health, Guy's and St Thomas NHS Foundation Trust, London); Dr Rhoda Lee (Staff Editor, Stockley's Drug Interactions, London); Miss Claire Preston (Pharmacist, Staff Editor, BNF Publications, London); Ms Fiona Robb (Antimicrobial Pharmacist, Gartnavel General Hospital, North West Glasgow); Ms Rachel Ryan (Assistant Editor, British National Formulary); Dr Nicky Waddell (Associate Specialist Palatine CASH Services, Hathersage Centre, Manchester); Dr Laura Waters (Locum HIV/GU, Consultant; Treasurer, BASHH HIV Special Interest Group, London); Dr Kate Weaver (Associate Specialist, Sexual and Reproductive Healthcare, Dean Terrace, Edinburgh); Dr Andrew Winter (Consultant in Genitourinary Medicine & HIV, Joint Clinical Director, Sandyford, NHS Greater Glasgow & Clyde, Glasgow)

Administrative support to the CEU team was provided by Ms Janice Paterson.

Financial Disclosures/Conflicts of Interest

No conflicts of interest were declared by any members of the multidisciplinary group.

Guideline Status

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This guideline updates a previous version: Faculty of Family Planning and Reproductive Health Care Clinical Effectiveness Unit. FFPRHC Guidance (April 2005). Drug interactions with hormonal contraception. J Fam Plann Reprod Health Care 2005 Apr;31(2):139-51. [117 references]

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Faculty of Sexual and Reproductive Healthcare Web site .

Print copies: Available from the Faculty of Sexual and Reproductive Healthcare, 27 Sussex Place, Regent's Park, London NW1 4RG

Availability of Companion Documents

A discussion point and questions for the drug interactions with hormonal contraception developed by the Faculty of Sexual and Reproductive Healthcare are available at the end of the original guideline document .

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI on July 19, 2005. This summary was updated by ECRI on October 4, 2006 following the new FDA advisory on Ortho Evra. This summary was updated by ECRI Institute on February 4, 2008 following the new U.S. Food and Drug Administration advisory on Ortho Evra Contraceptive Transdermal Patch. This NGC summary was updated by ECRI Institute on May 9, 2012.

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